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Psychosis or Spiritual Emergency: The Potential of Developmental Psychopathology for Differential Diagnosis

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This paper reviews the nosological systems in the field of psychology, comparing the classic medical model with a developmental approach to psychopathology and wellbeing. The argument is made that a developmental model offers greater refinement for distinguishing phenomenologically similar experiential states. Due to their substantial overt resemblance, a contrast between spiritual emergencies and pathological psychotic reactions is presented as an example. To make this comparison, the nature and etiology of psychotic disorders is reviewed, underscoring their developmental, as opposed to spontaneous, origins. This is followed by a brief overview of spirituality and its place in psychological wellbeing and development. Finally, the concept of spiritual emergency is presented, followed by a discussion of how a holistic, developmental understanding of psychological disorder and wellbeing can aid clinicians in differentiating psychotic experiences indicative of psychopathology from spiritual emergencies.

Keywords: *spiritual emergency; religious and spiritual problem; developmental psychopathology; differential diagnosis*

The manner in which human experience is conceptualized will invariably have a profound impact on the way any given experiential state will be understood and related to. Since all models used to conceptualize human experience are inherently bound to the context from which they are derived, all frameworks are thus limited and incomplete (Jensen & Hoagwood, 1997). In the context of contemporary Western society, the disciplines of psychology and psychiatry are charged with the study of the human mind (Lazare, 1973) and deciding which phenomenological experiences are to be deemed disordered and non-disordered (Sroufe, 1997). It is prudent to consider how various models used in psychology and psychiatry might be integrated and thus expanded to yield clinicians with greater nuance and sensitivity in their diagnostic decisions.

While psychology and psychiatry have traditionally labeled mystical experiences and spiritual visions as pathological (Lukoff, 2005), the Diagnostic and Statistical Manual (American Psychiatric Association, [APA], 1994, 2013) has introduced the category *Religious or Spiritual Problem* due to increasing awareness that many such experiences and their sequela—though often distressing to the individual—are not necessarily indicative of psychopathology.

Although it is commendable that increased sensitivity toward the spiritual and transpersonal dimensions of human experience (see Johnson & Friedman, 2008) has expanded our clinical lexicon, accurate diagnosis of religious or spiritual problems remains a challenge due to surface level, symptomatic similarities between certain spiritual experiences and the acute psychotic reactions associated with psychotic disorders (Grof & Grof, 1989, 1990). That is, the *atheoretical* approach of the DSM and the classic medical model affords clinicians limited conceptual resolution to accurately make this distinction. However, it is essential that clinicians be able to do so, as harm may result from inappropriate treatment of a misdiagnosed spiritual experience (Johnson & Friedman, 2008; Lukoff, 2005). Consequently, the purpose of this paper is to elucidate how a holistic, developmental model, encompassing the continuum from pathology to advanced wellbeing, may afford clinicians with a more nuanced framework to accurately distinguish psychotic reactions indicative of psychopathology from nonpathological, though potentially distressing, spiritual experiences.

The Conceptualization of Disorder

There are numerous theoretical models with which psychological experience and psychiatric illness may

be conceptualized. Because all frameworks are more or less arbitrarily constructed systems (Popper, 1994; Wiggins & Schwartz, 1994), each will inherently contain its own set of assumptions and biases. Nonetheless, all approaches seek to conceptualize the nature of human experience, establish whether or not a given phenomenon is healthy or disordered, and—in the case of the latter—determine the most appropriate treatment (Jensen & Hoagwood, 1997). In essence, our psychological theories can be thought of as maps used to delineate psychological wellbeing from distress and dysfunction.

Of the differing systems used to identify and describe psychological disturbance, the classic medical model remains dominant. In the classic medical model, psychological disorders are believed to be discrete states arising from pathogenic, endogenous processes (Sroufe, 1997). Although environmental factors may be considered to play a role, the essential nature of psychological disorders is assumed to lie in organic pathology. Naturally, this has implications for how psychological distress is treated, such that biomedical interventions are typically prioritized. However, as Sroufe (1997) pointed out, there is little empirical evidence supporting the assumption that the classic medical model is inherently correct or complete. In fact, the classic medical model is considered anachronistic in many areas of medicine (Rutter, 1996).

Concerns have been raised about the atheoretical and narrowly descriptive lens adopted by the classic medical model for viewing psychopathology. Kleinman (1977) pointed out that it is erroneous to assume psychological disorders are pure, biological entities that can be discovered by peeling away the larger, socio-cultural context. Similarly, Jensen and Hoagwood (1997) argued that the medical lens fails to take into account the effects of various etiological factors, experiences, developmental history, and environmental context. They argued that this perspective typically does not consider the possibility that psychological disorders may reflect the individuals' attempt to adapt to the broader context of which they are a part. In other words, simply screening individuals on the basis of overt signs and symptoms neglects other, pertinent diagnostic information.

Developmental Psychopathology

In contrast to the classic medical model is the perspective of developmental psychopathology, which emerged as a discipline during the mid to late 1980s (Cicchetti, 1984). Developmental psychopathology has been defined as a macroparadigm (Achenbach, 1990) or

simply a developmental model for understanding and treating psychopathology (Masten, 2006). The field of developmental psychopathology derives from a number of disciplines, including embryology, epidemiology, genetics, neuroscience, philosophy, psychiatry, psychoanalysis, clinical, developmental, experimental, and physiological psychology, as well as sociology (Cicchetti, 1990). Consequently, it is a dynamic, interdisciplinary field that seeks to elucidate the interplay of biological, psychological, and social-contextual factors involved in normal and abnormal development (Cicchetti & Toth, 2009). Moreover, as development is affected by events and experiences that are unique to each stage of life, development is conceptualized as a continuous process unfolding over the life-span (Rutter & Sroufe, 2000).

As seen through the lens of developmental psychopathology, disorders cannot be understood as merely the result of dysfunctional endogenous processes (Sroufe, 1997); many other factors contribute and interact with physiological processes in a dynamic fashion. However, the classic medical model gives primacy to biology and fails to adequately acknowledge the transactional processes occurring between the biological organism and its broader environmental context (Cicchetti & Toth, 2009). While the vast literature on genetic and physiological factors involved in psychopathology is included within the developmental model, disorders are conceptualized more holistically, as involving a complex interaction of biology and adaptation to the environment (Sroufe & Egeland, 1991). The course of an individual's development can take many directions, and there are multiple routes toward psychopathology or wellbeing (Masten, 2006). Thus, both disordered functioning and optimal wellbeing are arrived at through developmental pathways, a consequence of steady growth and adaptation over time (Sroufe, 1997).

The Path Toward Psychopathology or Optimal Wellbeing

While the field of developmental psychopathology provides a more nuanced frame for conceptualizing the developmental origins of psychological disorder, positive, humanistic, and transpersonal psychology have similarly expanded our understanding of the other side of the developmental spectrum. In other words, positive, humanistic, and transpersonal psychology offer frameworks for conceptualizing optimal psychological

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wellbeing or flourishing (Keyes, 2002), and provide a context for the importance of spirituality in human development. As such, these models do not override, but supplement, those provided by studying the developmental pathways towards disorder.

Pragmatically speaking, a framework incorporating models of both developmental psychopathology (e.g., Cicchetti, 2010) and optimal wellbeing (e.g., Peterson & Seligman, 2004; Wilber, 2006) yields enhanced clinical utility. In particular, this comprehensive framework—embracing both psychopathology and advanced functioning—may afford clinicians with a subtler ability to accurately conceptualize what may be a challenging, spiritual experience from an acute psychotic reaction indicative of psychopathology. Although the conventional psychiatric approach is likely to interpret distressing spiritual experiences as nothing more than psychotic states, other approaches take the opposite view and interpret psychotic states as nothing more than distressing spiritual experiences (see Goretzki, Thalbourne, & Storm, 2009). However, it is the argument of this paper that, although acute psychotic reactions and certain states known as spiritual *emergencies* are phenomenologically similar, they are in fact distinct processes, and that a developmental understanding of psychotic *disorders* can help to elucidate this distinction.

In order to demonstrate this perspective, the nature of psychotic disorders will first be outlined, underscoring their developmental, as opposed to spontaneous, emergence. This will be followed by a brief overview of spirituality and its place in human wellbeing and development. Finally, the concept of spiritual emergencies will be presented, followed by a discussion of how a developmental and transpersonal approach to both psychological disorder and wellbeing can help clinicians make a differential diagnosis.

Psychotic Disorders

The most recent edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5; APA, 2013) includes the broad classification of schizophrenia spectrum and other psychotic disorders. Taken together, this includes a number of disorders that involve abnormal functioning characterized by one or more of the following: (a) delusions, hallucinations; (b) disorganized thinking (as evidenced through speech); (c) disorganized or abnormal motor behavior; and (d) negative symptoms (APA, 2013). As with many other psychological or psychiatric disorders, it has become increasingly accepted that a

developmental perspective is an appropriate framework for conceptualizing schizophrenia spectrum and other psychotic disorders (Broome et al., 2005; Cannon et al., 2002; Cannon & Murray, 1998; Davies, Russell, Jones, & Murray, 1998; Harrison, 1997; Marenco & Weinberger, 2000; Rutter & Sroufe, 2000). Indeed, over the past few decades a developmental understanding of these disorders has become the prevailing explanatory theory. Simply put, this model posits that schizophrenia and related psychotic disorders are the outcome of aberrations in developmental processes that begin long before the onset of clinical symptoms (Rapoport, Addington, Frangou, & Psych, 2005).

Developmental contributors to psychotic disorders. Mounting research has revealed that children who develop schizophrenia as adults exhibit increased rates of disrupted motor, cognitive, and social development in childhood. In fact, nearly half of adult onset schizophrenic psychoses are preceded by substantial nonpsychotic abnormalities in childhood (Done et al., 1991; Jones, Rodgers, Murray, & Marmot, 1994; Offord & Cross, 1969). For example, declining or consistently low intellectual functioning in early childhood is associated with later development of schizophrenia and related disorders (Cannon et al., 2002; Kremen et al., 1998). In addition, there is substantial evidence indicating that adults with schizophrenia have deficits in various neuropsychological domains, including attention, executive functioning, language, memory, and general intellectual ability (Heinrichs & Zakzanis, 1998).

Mednick et al. (1998) have noted that environmental risk factors, such as delivery complications, problematic rearing conditions, trauma, social adversity, drug abuse, urbanicity, and migrant status also contribute to the development of schizophrenia and related psychotic disorders (see van Os, Linscott, Myin-Germeys, Delespaul, & Krabbendam, 2009, for a review). Moreover, there is evidence that exposure to multiple early traumas is associated with a linear increase in risk for psychosis. In other words, prolonged and repeated exposure to cumulative adversity over time may compound risk for the emergence of a psychotic disorder (Morgan & Hutchinson, 2010). Thus, individual traits and environmental factors that are present during the developmental periods prior to adulthood (i.e., infancy, childhood, and adolescence) appear to contribute significantly to the development and eventual emergence of psychotic disorders.

Despite many risk factors being associated with the development of psychotic disorders, an overwhelming majority (75 to 90 percent) of reported acute, psychotic *experiences* are transitory and do not persist (van Os et al., 2009). The fact that many psychotic experiences do not persist in the form of psychotic disorders is consistent with the developmental pathways model (Sroufe, 2009). Developmental psychopathology explains how, through developmental pathways, an individual can, based on his or her experiences, move toward or away from psychopathology. In other words, events and experiences lead an individual toward or away from psychopathology, and this model assumes that change is possible at any given point in time over the lifespan (Sroufe, 1997). The pathways model has not only led to a better understanding of how deviations in normal development occur, but has also allowed researchers to conceptualize development as involving risk *and* resilience (Masten, 2011). In short, this model suggests that psychotic disorders do not simply emerge spontaneously.

Thus, the occurrence of psychotic symptomology in an individual with no known history that could be described as an aberrant developmental pathway should not immediately be construed as indicative of a psychotic disorder. This point is critical, as there are various symptomatic resemblances between particular forms of spiritual experiences—namely, spiritual emergencies—and acute psychotic experiences (Grof & Grof, 1989, 1990; Lukoff, 1985, 2005). A greater understanding of the pathways involved in the development of psychotic disorder may thus afford clinicians greater skill and sensitivity when differentiating between “psychotic-like” spiritual emergencies and psychotic reactions indicative of psychopathology. Before reviewing spiritual emergencies, a broader discussion of spirituality and spiritual experiences is presented.

Spirituality

Interest in spirituality has seen considerable growth in various disciplines, including psychology, medicine, nursing, social work, counseling, sociology, and management (MacDonald et al., 2015). Fetzer (1999) in a report of the Fetzer Institute/National Institute on Aging Working Group defined spirituality as being “concerned with the transcendent, addressing ultimate questions about life’s meaning, with the assumption that there is more to life than what we see or fully understand” (p. 2). Similarly, de Jager Meezenbroek and colleagues (2012) defined spirituality as “one’s striving for an experience of

connection with oneself, connectedness with others and nature, and connectedness with the transcendent” (p. 338). However, Helminiak (2008) argued that the term transcendence is often associated with religious systems that are concerned with metaphysical or supernatural postulations. Thus, it is important to note that spirituality and religion are not synonymous (Sinclair, Pereira, & Raffin, 2006). Increased secularism in Western culture has seen a decrease in the overtly religious connotations of the term spirituality (Chochinov & Cann, 2005), and empirical studies have demonstrated that religiousness and spirituality are independent dimensions (Saucier & Skrzypińska, 2006). Indeed, spirituality is increasingly being recognized as an important facet of many people’s lives, including those who do not adhere to a particular set of religious beliefs (Garssen, Visser, & de Jager Meezenbroek, 2016). Thus, it has been argued that spirituality is a broader concept than religion, which may be seen as institutionalized codifications through which one’s spirituality may be articulated (Brady, Peterman, Fitchett, Mo, & Cella, 1999). Consequently, one’s spirituality may be expressed through a variety of forms, such as a religious tradition, meditative or contemplative practice, nature, art, or the ritual use of entheogens (Peteet & Balboni, 2013; Wasson, 1980).

Furthermore, spirituality need not be interpreted in a supernatural sense. Indeed, Maslow (1994) emphasized that spirituality can have a naturalistic meaning and is not contingent upon supernatural beliefs for its expression. Similarly, Atchley (1997) suggested that spirituality may be understood as the domain through which one approaches issues such as the meaning of life and death, the nature of existence, one’s relationship with infinity, the nature of suffering, and morality. MacDonald et al. (2015) have argued that spirituality can be understood as a natural aspect of human functioning relating to certain non-ordinary states of consciousness, and the beliefs, attitudes, and behaviors associated with them. These spiritual or mystical states of consciousness alter the function and expression of self and impact the ways in which one perceives and understands oneself, others, and one’s relationship to existence (MacDonald et al., 2015). As such, spirituality can be seen as a universal human domain, entailing one’s sense of connection to the larger reality of which one is a part—a connection that serves to instill life with a greater sense of meaning and purpose (Byock, 2002). This meta-framework gives coherence and direction to life, links one to others,

grounds one in a sense of relatedness to an ultimate frame of reference, and enables one to face the challenges of being (Fowler & Dell, 2006).

As noted by MacDonald et al. (2015), approaching spirituality in this manner allows for its inclusion within empirical science in a way that does not require the use of religious terminology yet accepts that such ideas and systems of thought can be useful scaffolds for interpreting spiritual experiences. It also allows the possibility of studying prayer, meditation, and entheogen use as means for facilitating spirituality. This is of pragmatic significance, as over the past few decades there has been a steadily growing body of research establishing a significant relationship between spirituality and various indices of wellbeing (Menezes & Moreira-Almeida, 2010). For example, spirituality is associated with lower rates of depression, suicide, and substance abuse (Ano & Vasconcelles, 2005; George, Larson, Koenig, & McCullough, 2000; Hackney & Sanders, 2003; Sawatzky, Ratner, & Chiu, 2005; Visser, Garssen, & Vingerhoets, 2010; Yonker, Schnabelrauch, & Dehaan, 2012). In addition, spirituality is associated with enhanced positive affect, lowered negative affect, positive relations with others, a sense of purpose in life, self-acceptance, and life satisfaction (Greenfield, Vaillant, & Marks, 2009). Similarly, many theorists in positive, humanistic, and transpersonal psychology consider spirituality to be a significant component of advanced human development (e.g., Frankl, 1975; Jung, 1944/2014; Maslow, 1994; Peterson, & Seligman, 2004; Washburn, 1995; Wilber, 2006). For example, Grof and Grof (1990) have suggested that spirituality is a critical aspect of human development involving maturation in functioning, resulting in greater health, integration, and wellbeing.

Perhaps unsurprisingly, then, estimates suggest that upwards of two-thirds of psychologists believe that spirituality and spiritual experiences may be important aspects of optimal human functioning (Allman, de la Roche, Elkins, & Weather, 1992). Spiritual experiences are not rare, with five to forty percent of the general population reporting having had at least one spiritual or mystical experience (Allman et al., 1992; Davis & Smith, 1985; Greeley, 1974; Ring, 1985; Thomas & Cooper, 1978). Indeed, spiritual practices such as prayer, meditation, or entheogen use are associated with increased numbers of spiritual or mystical experiences (e.g., Lyvers & Meester, 2012; Walsh & Vaughan, 1991),

and the occurrence of these experiences is correlated with wellbeing (e.g., Griffiths et al., 2011; Griffiths, Richards, Johnson, McCann, & Jesse, 2008; Griffiths, Richards, McCann, & Jesse, 2006; Hood, 1977; Maslow, 1994).

Religious or Spiritual Problem

Despite the importance and relative frequency of spiritual experiences in many people's lives, spiritual visions and mystical experiences have often been viewed as symptomatic of psychopathology in traditional Western society (Lukoff, 2005). However, the Diagnostic and Statistical Manual of Mental Disorders introduced the category *Religious or Spiritual Problem* in its fourth edition (APA, 1994) due to increasing cultural sensitivity towards the issue of spiritual and religious experiences (Johnson & Friedman, 2008). Motivation for the development of this category derived from the Spiritual Emergence Network (at the time called the Spiritual Emergency Network) which was troubled by the default, pathological stance adopted by most mental health professionals towards challenging spiritual experiences (Lukoff, Lu, & Turner, 1998). The important distinction between Major Depressive Disorder and nonpathological bereavement served as a precedent for the inclusion of Religious or Spiritual Problem (Lukoff, Lu, & Turner, 1998). In the same way that an individual may experience nonpathological bereavement symptoms resembling Major Depressive Disorder (APA, 2013, p. 161), individuals struggling with a difficult spiritual experience may appear to have a psychological disorder, but are in fact going through a normal, albeit distressing and disruptive, process (Lukoff, 1988). The definition of Religious or Spiritual Problem which first appeared in the DSM-IV and has been retained in the DSM-5, is as follows:

This category can be used when the focus of clinical attention is a religious or spiritual problem. Examples include distressing experiences that involve loss or questioning of faith, problems associated with conversion to a new faith, or questioning of other spiritual values that may not necessarily be related to an organized church or religious institution. (APA, 2013, p. 725)

The inclusion of this category in the DSM has opened clinicians to the possibility of assessing religious and spiritual experiences as part of their psychological or psychiatric assessments without prejudging such experiences as inherently pathological (Johnson & Friedman, 2008; Menezes & Moreira-Almeida, 2010).

However, this can be challenging as it necessitates differentiating between four variations of distress involving religious or spiritual content: (a) purely religious problems; (b) mental disorders with religious or spiritual content; (c) religious or spiritual problems concurrent with a mental disorder; and (d) religious or spiritual problems not attributable to a mental disorder (Lukoff, Lu, & Turner, 1996). To add to this complexity, individuals experiencing pathological psychotic reactions often present with delusions and hallucinations of a religious or spiritual nature (Menezes & Moreira-Almeida, 2010). It is here that an expanded model incorporating both developmental psychopathology and transpersonal psychology may help inform the judgment of clinicians trying to make an accurate diagnosis.

The first category, *purely religious problem*, includes concerns of faith and doctrinal matters, and should be treated by appropriate ministry as opposed to mental health professionals (Lukoff, Lu, & Turner, 1992). For example, a person experiencing distress related to his or her religion might consider consulting with clergy (Johnson & Friedman, 2008). Similarly, a person may experience a purely spiritual problem, such as an individual experiencing unusual perceptual phenomena while meditating. In such cases, knowledgeable spiritual teachers should be consulted (Lukoff et al, 1996).

The second category, *mental disorder with religious and spiritual content*, can be understood as a psychological disorder that manifests religious or spiritual symbols or expressions (Lukoff et al, 1996). This might include obsessive-compulsive disorder, manic episodes in bipolar disorder, or psychotic episodes that involve religious or spiritual content, as sometimes seen in schizophrenia. For example, some individuals with psychotic disorders present with beliefs of being Jesus Christ or experiencing direct communication with God (Lukoff et al, 1992).

The third category, *religious or spiritual problem concurrent with a mental disorder*, involves religious or spiritual problems that occur in tandem with an existing psychological disorder (Lukoff et al, 1996). For example, if excessive religious rituals are associated with obsessive-compulsive disorder (OCD), then both OCD and a religious or spiritual problem may be considered as appropriate diagnoses (Johnson & Friedman, 2008).

The fourth category, *religious or spiritual problem not attributable to mental disorder*, refers to distressing religious, spiritual, or transpersonal experiences not directly linked to or caused by a psychological

disorder (Lukoff et al., 1996). This may include near-death experiences, mystical experiences, and spiritual emergencies. Near-death experiences sometimes occur in individuals very close to death, and may precipitate profound psychological transformations (Menezes & Moreira-Almeida, 2010). Such experiences often involve feelings of being out of one's body or being transported to another reality and, despite their anomalous nature, are not uncommon, with up to one-third of individuals close to death reporting having such an experience (Lukoff, Lu, & Turner, 1995). During a mystical state of consciousness one may experience a loss of ego boundaries and a sense of unity, transcendence of time and space, strongly felt positive emotions, a sense of sacredness and awe, and a deep sense of purpose and meaning (Griffiths et al., 2006, 2008, 2011; Lukoff, Lu, & Turner, 1995; Pahnke & Richards, 1966). Although mystical experiences may occur spontaneously, humans have developed a number of means with intent to induce them, such as meditation, prayer, fasting, dance, and the use of psychedelic substances (Metzner, 2010).

It has been noted that although mystical and psychotic experiences are two very different categories, there are nonetheless some phenomenological similarities (Parnas & Henriksen, 2016). While the psychiatric literature has briefly explored the parallels between mystical experiences and the acute psychotic episodes associated with schizophrenia (Buckley, 1981; Oxman, Rosenberg, Schnurr, Tucker, & Gala, 1988), scholars of mysticism ardently distinguish between genuine mystical states and pathological psychoses (e.g., Stace, 1960). For example, the hallucinations found in mystical experiences are often more visual as compared with the auditory hallucinations often encountered in schizophrenia (Buckley, 1981). Thus, while a mystical experience in and of itself does not indicate pathology, the highly unusual nature of such experiences can cause significant confusion and distress, and in some cases may precipitate a spiritual emergency (Lukoff & Everest, 1985). In such cases, symptomatic overlap makes spiritual emergencies perhaps the most difficult form of religious or spiritual problems to accurately differentiate from acute psychotic experiences indicative of psychotic disorder (Menezes & Moreira-Almeida, 2010).

Spiritual emergency. Spiritual emergence is understood to be a normal process of deep psychological change, often involving non-ordinary states of consciousness, intense emotions, visions, and unusual

thoughts (Grof & Grof, 1989, 1990; Menezes & Moreira-Almeida, 2010). The birth or loss of a child, a divorce, financial ruin, as well as spiritual practices such as meditation, yoga, and entheogen use may act as triggers to such a state. When the process occurs in a gradual way, the experience typically does not cause distress (spiritual emergence); when the experience is chaotic or overwhelming, however, it may lead to a crisis (spiritual emergency). Expanded states of consciousness can overwhelm and fragment the self-structure, leaving the individual distressed and destabilized until the experience can be accommodated (Cortright, 2007). Thus, spiritual emergence occurs when a spiritual experience is successfully integrated (Grof & Grof, 1989; Johnson & Friedman, 2008), whereas spiritual emergency occurs when a spiritual experience is so overwhelming as to be temporarily non-assimilable (Lukoff et al., 1995).

During a spiritual emergency, symptoms that appear psychotic, such as hallucinations, delusions, and disorientation often occur. However, in these cases apparent psychotic symptoms are not indicative of a psychotic disorder (Lukoff, 2005). Instead, the crisis is considered a normal and often necessary aspect of psychological healing and development (Grof & Grof, 1989, 1990). Indeed, spiritual emergencies are not uncommon in the process of advanced psychospiritual development (Cortright, 2007; Grof & Grof, 1989; Washburn, 1995). Moreover, under supportive conditions spiritual emergencies will eventually resolve, often resulting in psychological growth, self-transcendence, and increased wellbeing (Johnson & Friedman, 2008; Lukoff, 2005).

Bragdon (2006) suggested there are three ways an individual can react to a profound spiritual experience: (a) it may be integrated with subsequent spiritual and psychological growth (spiritual emergence); (b) the individual may become temporarily overwhelmed in a state of crisis, but eventually integrate the experience with subsequent spiritual and psychological growth (spiritual emergency); or (c) the individual may fail to integrate the experience, resulting in a state of fragmentation (trauma). This is crucial, as the clinician's response to an individual in spiritual emergency will have a critical impact on whether the experience is successfully integrated (Greyson & Harris, 1987). Indeed, harm may occur through inappropriate treatment of a misdiagnosed psychotic disorder (Johnson & Friedman, 2008; Lukoff, 2005). For example, negative reactions from a clinician may intensify

an individual's sense of isolation and shame, and may block his or her efforts to seek guidance in integrating the challenging spiritual experience (Cortright, 2007; Turner, Lukoff, Barnhouse, & Lu, 1995). There are many reported cases of individuals who had their spiritual crises interrupted through the use of psychiatric medication; becoming suspended in this liminal state may lead the individual to feel as though he or she has a permanent mental disorder, although this disorganized state is actually a function of iatrogenic mistreatment (Cortright, 2007).

Understandably, individuals undergoing a powerful spiritual emergency are sometimes at risk for being hospitalized as psychotic (Lukoff, 1985). However, while the category of religious or spiritual problem may help clinicians to be aware that spiritual emergencies can occur, the DSM does not provide clinicians with the means for conceptualizing, and thus distinguishing, such experiences from acute psychotic reactions indicative of psychopathology.

Differential Diagnosis

Although the need for psychologists and psychiatrists to differentiate distressing spiritual experiences from pathological psychotic reactions has been raised previously (e.g., Gabbard, Twemlow, & Jones, 1982; Grof & Grof, 1989, 1990; Lukoff, 2005), a holistic approach—including both developmental psychopathology and transpersonal psychology—is proposed as a means to help clinicians conceptualize *why* an individual presenting with seemingly psychotic symptoms may not necessarily be diagnosable with a psychotic disorder. While it is laudable that the DSM-IV, and its successor the DSM-5, include the diagnostic category for religious or spiritual problems, the manual's simultaneous aspiration to be atheoretical (Jensen & Hoagwood, 1997; Tsou, 2015) results in a significant weakness with respect to its use for accurate diagnosis. Given the overt, symptomatic overlap between psychotic states and spiritual emergencies (Lukoff, 2005), the atheoretical model has limited diagnostic sensitivity in that it does not consider the broader contextual and developmental factors involved. In other words, the DSM classification relies too heavily on a descriptive, symptom-based approach, which implies that some kinds of clinical data are irrelevant (Jensen & Hoagwood, 1997).

Furthermore, while the field of transpersonal psychology has done much to increase recognition of the legitimacy of spiritual experiences and has broached the

relevance of developmental factors (e.g., Wilber, 1984, 1996), it may be augmented by incorporating contemporary findings from the emerging field of developmental psychopathology. Thus, a holistic, developmental model, incorporating biological, psychological, sociocultural, and transpersonal factors may afford clinicians a subtler framework for making accurate differential diagnoses. This is paramount, as while it is possible to over-interpret seemingly psychotic states as pathological, Grof and Grof (1989) noted that it is equally possible to make the inverse error and minimize pathological experiences that are symptomatic of psychotic disorder.

Psychopathology exists as a process, and because a process extends through time, it must be understood as such (Cicchetti, 1984; Cicchetti & Toth, 2009). Accordingly, the importance of assessing an individual's pre-episodic functioning and developmental trajectory are essential for making an appropriate diagnosis (Bragdon, 2006; Cortright, 1997). As previously noted, a developmental lens contends that psychotic disorders do not simply emerge spontaneously. Instead, psychopathology is generally the product of repeated disturbances in healthy developmental processes (Sroufe, 1997). In contrast, spiritual emergencies often occur in normal or otherwise healthy individuals engaged in spiritual practice, such as meditation or the use of psychedelic compounds (Grof & Grof, 1989). Consequently, it must be emphasized that while psychotic *disorders* are the product of adverse development over time, spiritual emergencies are acute, "psychotic-like" *states* which may occur in developmentally normal or healthy individuals (see Grof & Grof, 1989, 1990; Washburn, 1995). It is here that Wilber's (1996) notion of the pre/trans fallacy is particularly illustrative. For an individual on a deleterious developmental pathway, acute psychotic states may be viewed as pathological, *pre*-rational experiences. Conversely, for an individual on a healthy developmental pathway, these acute "psychotic-like" states may be seen as nonpathological, *trans*-rational experiences. It is therefore essential to be aware of an individual's developmental history.

In addition, it takes an understanding of a person in his or her socio-cultural framework to understand his or her experiential state (Jensen & Hoagwood, 1997; Sroufe, 1997). In other words, sensitivity to the contextual aspects of normal and abnormal functioning (Cicchetti & Toth, 2009), including spiritual beliefs and practices, is essential. This corresponds with Barnhouse's (1986) suggestion that assessment of an individual's religious or

spiritual background and practices should be included in any psychological or psychiatric evaluation. This is critical, as the content of delusions and hallucinations of a religious or spiritual nature can rarely be used to discern psychosis from spiritual emergency (Barnhouse, 1986). Indeed, Goretzki et al. (2009) found strong correlations between self-reported psychotic and spiritual emergency phenomenology, further blurring the overt, symptomatic distinction between these states.

Thus, when an individual presents with psychotic symptoms of a religious or spiritual nature and a history of normal development, a diagnosis of spiritual emergency should be considered (Johnson & Friedman, 2008). Lukoff (1985) stressed the importance of assessing for the presence of good pre-episode functioning; an acute onset of symptoms (3 months or less); a stressful precipitant to the episode, such as a major life change or life-stage transition; and a positive, exploratory attitude toward the experience as meaningful or growth promoting, when evaluating for spiritual emergency. If possible, clinicians should also strive to assess those developmental markers (reviewed above) that may be indicative of a psychopathological developmental pathway (e.g., perinatal trauma, motor, language, and neurocognitive impairment in childhood and adolescence, a history of trauma, etc.).

Treating spiritual emergencies. Developmental psychopathology has established that individuals showing the same overt symptoms may have divergent developmental trajectories and, consequently, potentially very different treatment indications (Masten, 2006; Sroufe, 1997). It has been suggested that when an individual is believed to be experiencing a psychotic episode associated with a psychotic disorder, medication and/or hospitalization may be required (Grof & Grof, 1990). Conversely, there are differing treatment recommendations for when an individual is believed to be experiencing a spiritual emergency.

Of these, the most crucial factor is containment—the individual must be completely safe and supported to fully experience the process (Cortright, 2007). This may entail external structure, such as a retreat setting, a friend or family's home, or potentially a hospital inpatient facility. As the process stabilizes, outpatient therapy may be helpful, although meeting more than once a week, and for more than an hour, may be needed (Cortright, 2007). Grof and Grof (1989) have suggested that the individual consume "grounding foods," such as red meat and cheese, as well as beverages containing honey and sugar.

Participation in grounding activities, such as gardening and light exercise, as well as working with dreams and artistic mediums to process the experience may also be helpful (Grof & Grof, 1989).

Another critical factor in the treatment of a spirituality emergency is a strong, trusting relationship with a therapist who serves to ground, stabilize, and provide guidance to the individual through the tumultuous process (Cortright, 2007). Part of this trusting relationship entails empathic understanding and acceptance of the validity of the individual's experience. In addition, psychoeducation in the form of a psychospiritual conceptualization for the individual's experience can provide the individual with a nonpathological framework for what is occurring, thus reducing fear that one may be "going crazy" (Lukoff et al., 1998). Ultimately, treating a spiritual emergency entails containing and tempering the process so that the individual can slowly process and integrate the experience into his or her self-structure. Thus, although it is important to allow the process to unfold, it is equally imperative that the intensity is moderated such that the individual's integrative capacity is not overwhelmed (Cortright, 2007).

The Special Case of Substance/Medication-Induced Psychotic Disorder

Although an understanding of developmental psychopathology may help clinicians to distinguish between states indicative of a primary psychotic disorder and those better classified as spiritual emergencies, other domains of research can elucidate the difference between a substance/medication-induced psychosis and a spiritual emergency. The essential characteristics of a substance/medication-induced psychosis are delusions and/or hallucinations that are assumed to be due to the biological effects of a chemical agent, such as alcohol, cannabis, hallucinogens, inhalants, sedatives, stimulants, etc. (APA, 2013). Thus, a substance/medication-induced psychotic disorder is differentiated from the primary psychotic disorders, outlined above, such as schizophrenia or schizoaffective disorder, in that a substance precipitates the symptoms. Thus, substance/medication-induced psychotic disorders may occur during or shortly after use or during a withdrawal period, and may continue for a few weeks. Conversely, a primary psychotic disorder may be evidenced by the persistence of symptoms for a substantial duration following acute drug intoxication or withdrawal (APA, 2013).

However, the use of psychoactive substances may also precipitate a spiritual emergency, which raises the challenging question as to how a clinician may differentiate a spiritual emergency precipitated with a drug from a substance/medication-induced psychotic disorder. As with distinguishing spiritual emergencies from psychoses concomitant with primary psychotic disorders, making this subtle differential is critical, as negative outcomes may occur from improper diagnosis and treatment. The re-emerging field of psychedelic research provides valuable insights in this domain, and thus offers a substantial contribution to increasing the resolution of clinicians' diagnostic maps. For example, it has been established that a particular subset of the hallucinogens, known as the classic psychedelics (e.g., LSD, psilocybin, mescaline, and DMT), are able to induce profound mystical experiences, which, as previously noted, may evoke a spiritual emergency (Lukoff & Everest, 1985). Indeed, the classic psychedelics have a longstanding association with precipitating spiritual emergencies (Grof & Grof, 1989, 1990; Lewis, 2008). Moreover, as compared to other substances, only the classic psychedelics have been shown to reliably induce mystical experiences, even in experimental settings (Griffiths et al., 2006, 2008, 2011; Lyvers & Meester, 2012; MacLean, Johnson, & Griffiths, 2011).

Consequently, clinicians should be particularly mindful to assess for usage of a classic psychedelic substance when encountering an individual that is believed to be experiencing a substance/medication-induced psychosis, as this may be indicative of a spiritual emergency. However, this does not imply that clinicians should dismiss considering a diagnosis of a spiritual emergency if an individual has taken a non-psychedelic drug. Rather, clinicians are encouraged to be especially aware that classic psychedelic drugs have a known association with spiritual emergencies. Furthermore, if an individual reports to a hospital setting with psychotic symptomology after the use of a classic psychedelic, the astute physician should be cautious not to immediately assume a psychotic reaction and treat with antipsychotics, as this may exacerbate the condition (Hardaway, Schweitzer, & Suzuki, 2016; Puri, Hall, & Ho, 2013). Once again, the interpretation of clinical phenomena is paramount for beneficial outcomes. As with the primary psychotic disorders, an expanded conceptual framework incorporating transpersonal (e.g., psychedelic) research may aid clinicians in distinguishing between substance/medication-induced psychotic disorders and spiritual emergencies.

Summary

Accurately diagnosing a religious or spiritual problem can be highly challenging due to the symptomatic resemblance between certain spiritual experiences (spiritual emergencies) and psychotic episodes that are indicative of psychopathology (Johnson & Friedman, 2008). However, it is essential that clinicians be able to do so, as their response to an individual undergoing a spiritual emergency can influence whether the experience is integrated and used as a stimulus for personal growth, or distorted as a marker of psychopathology (Greyson & Harris, 1987). Moreover, inaccurate diagnosis and treatment can intensify an individual's spiritual crisis (Turner et al., 1995; Whitney, 1998), and potentially leave the individual in a traumatic state of fragmentation (Bragdon, 2006). However, with an understanding and normalizing environment (Lukoff, 2005), most individuals experiencing a spiritual emergency will have a positive prognosis (Johnson & Friedman, 2008). On the other hand, it is equally essential that psychotic reactions indicating the presence of a psychotic disorder be properly identified and diagnosed because, in these cases, traditional approaches to treatment such as medication and/or hospitalization may be required (Grof & Grof, 1990).

Although the classical medical model does not consider the broader contextual and developmental factors necessary to make such a distinction, a holistic approach incorporating both developmental psychopathology and transpersonal psychology takes these numerous dynamics into account. As such, this expanded framework may offer enhanced differential accuracy by providing clinicians greater nuance in their interpretive maps, thus helping them conceptualize why an individual presenting with seemingly psychotic symptoms may not necessarily be experiencing a psychotic disorder.

References

- Achenbach, T. M. (1990). What is "developmental" about developmental psychopathology? In J. Rolf, A. S. Masten, K. Nuechterlein, & S. Weintraub (Eds.), *Risk and protective factors in the development of psychopathology* (pp. 29–48). New York, NY: Cambridge University Press. <https://doi.org/10.1017/CBO9780511752872.004>
- Allman, L. S., de la Roche, O., Elkins, D. N., & Weathers, R. S. (1992). Psychotherapists' attitudes towards clients reporting mystical experiences. *Psychotherapy, 29*, 564–569. <https://doi.org/10.1037/0033-3204.29.4.564>
- American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: American Psychiatric Association.
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC: American Psychiatric Association. <https://doi.org/10.1176/appi.books.9780890425596>
- Atchley, R. C. (1997). Everyday mysticism: Spiritual development in later adulthood. *Journal of Adult Development, 4*, 123–134. <https://doi.org/10.1007/BF02510085>
- Ano, G. G., & Vasconcelles, E. B. (2005). Religious coping and psychological adjustment to stress: A meta-analysis. *Journal of Clinical Psychology, 61*, 461–480. <https://doi.org/10.1002/jclp.20049>
- Barnhouse, R. T. (1986). How to evaluate patients' religious ideation. In L. H. Robinson (Ed.), *Psychiatry and religion: Overlapping concerns* (pp. 89–106). Washington, DC.: American Psychiatric Press.
- Bebbington, P. E., Bhugra, D., Brugha, T., Singleton, N., Farrell, M., Jenkins, R., ... Meltzer, H. (2004). Psychosis, victimisation and childhood disadvantage. *The British Journal of Psychiatry, 185*, 220–226. <https://doi.org/10.1192/bjp.185.3.220>
- Brady, M. J., Peterman, A. H., Fitchett, G., Mo, M., & Cella, D. (1999). A case for including spirituality in quality of life measurement in oncology. *Psycho-Oncology, 8*, 417–428. [https://doi.org/10.1002/\(SICI\)1099-1611\(199909/10\)8:5<417::AID-PON398>3.0.CO;2-4](https://doi.org/10.1002/(SICI)1099-1611(199909/10)8:5<417::AID-PON398>3.0.CO;2-4)
- Bragdon, E. (2006). *A sourcebook for helping people with spiritual problems*. Woodstock, VT: Lightning Up Press.
- Broome, M. R., Woolley, J. B., Tabraham, P., Johns, L. C., Bramon, E., Murray, G. K., ... Murray, R. M. (2005). What causes the onset of psychosis? *Schizophrenia Research, 79*, 23–34. <https://doi.org/10.1016/j.schres.2005.02.007>
- Buckley, P. (1981). Mystical experience and schizophrenia. *Schizophrenia Bulletin, 7*, 516–521. <https://doi.org/10.1093/schbul/7.3.516>
- Byock, I. (2002). The meaning and value of death. *Journal of Palliative Medicine, 5*, 279–288. <https://doi.org/10.1089/109662102753641278>

- Cannon, M., Caspi, A., Moffitt, T. E., Harrington, H., Taylor, A., Murray, R. M., & Poulton, R. (2002). Evidence for early-childhood, pan-developmental impairment specific to schizophreniform disorder: Results from a longitudinal birth cohort. *Archives of General Psychiatry*, *59*, 449-456. <https://doi.org/10.1001/archpsyc.59.5.449>
- Cannon, M., & Murray, R. M. (1998). Neonatal origins of schizophrenia. *Archives of Disease in Childhood*, *78*, 1-3. <https://doi.org/10.1136/adc.78.1.1>
- Chochinov, H. M., & Cann, B. J. (2005). Interventions to enhance the spiritual aspects of dying. *Journal of Palliative Medicine*, *8*, 103-115. <https://doi.org/10.1089/jpm.2005.8.s-103>
- Cicchetti, D. (1984). The emergence of developmental psychopathology. *Child development*, *55*, 1-7. <https://doi.org/10.2307/1129830>
- Cicchetti, D. (1990). A historical perspective on the discipline of developmental psychopathology. In J. Rolf, A. Masten, D. Cicchetti, K. Nuechterlein, & S. Weintraub (Eds.), *Risk and protective factors in the development of psychopathology* (pp. 2-28). New York, NY: Cambridge University Press. <https://doi.org/10.1017/CBO9780511752872.003>
- Cicchetti, D., & Toth, S. L. (2009). The past achievements and future promises of developmental psychopathology: The coming of age of a discipline. *Journal of Child Psychology and Psychiatry*, *50*, 16-25. <https://doi.org/10.1111/j.1469-7610.2008.01979.x>
- Cicchetti, D. (2010). Developmental psychopathology. In R. M. Lerner, M. L. Lamb, & A. Freund (Eds.), *The handbook of life-span development: Social and emotional development, Vol. 2.* (pp. 511-589). Hoboken, NJ: John Wiley & Sons.
- Cortright, B. (1997). *Psychotherapy and spirit: Theory and practice in transpersonal psychotherapy*. Albany, NY: State University of New York Press.
- Cortright, B. (2007). *Integral psychology: Yoga, growth, and opening the heart*. Albany, NY: State University of New York Press.
- Davidson, M., Reichenberg, A., Rabinowitz, J., Weiser, M., Kaplan, Z., & Mark, M. (1999). Behavioral and intellectual markers for schizophrenia in apparently healthy male adolescents. *American Journal of Psychiatry*, *156*, 1328-1335.
- Davies, N., Russell, A., Jones, P., & Murray, R. M. (1998). Which characteristics of schizophrenia predate psychosis? *Journal of Psychiatric Research*, *32*, 121-131. [https://doi.org/10.1016/S0022-3956\(97\)00027-7](https://doi.org/10.1016/S0022-3956(97)00027-7)
- Davis, J. A., & Smith, T. W. (1985). *General social surveys, 1972-1985*. Chicago, IL: National Opinion Research Center.
- de Jager Meezenbroek, E., Garssen, B., van den Berg, M., Van Dierendonck, D., Visser, A., & Schaufeli, W. B. (2012). Measuring spirituality as a universal human experience: A review of spirituality questionnaires. *Journal of Religion and Health*, *51*, 336-354. <https://doi.org/10.1007/s10943-010-9376-1>
- Done, D. J., Crow, T. J., Johnstone, E. C., & Sacker, A. (1994). Childhood antecedents of schizophrenia and affective illness: Social adjustment at ages 7 and 11. *British Medical Journal*, *309*, 699-703. <https://doi.org/10.1136/bmj.309.6956.699>
- Done, D. J., Johnstone, E. C., Frith, C. D., Golding, J., P. L., Shepherd, P. M., & Crow, T. J. (1991). Complications of pregnancy and delivery in relation to psychosis in adult life. *British Medical Journal*, *302*, 1576-1580. <https://doi.org/10.1136/bmj.302.6792.1576>
- Fetzer, I. (1999). *Multidimensional measurement of religiousness/spirituality for use in health research: A report of the Fetzer Institute/National Institute on Aging Working Group*. Kalamazoo, MI: John E. Fetzer Institute.
- Fowler, J. W., & Dell, M. L. (2006). Stages of faith from infancy through adolescence: Reflections on three decades of faith development theory. In E. C. Roehlkepartain (Ed.), *The handbook of spiritual development in childhood and adolescence* (pp. 34-45). Thousand Oaks, CA: Sage. <https://doi.org/10.4135/9781412976657.n3>
- Frankl, V. (1975). *The unconscious god*. New York, NY: Schuster.
- Gabbard, G. O., Twemlow, S. W., & Jones, F. C. (1982). Differential diagnosis of altered mind/body perception. *Psychiatry* *45*, 361-369. <https://doi.org/10.1080/00332747.1982.11024168>
- Garssen, B., Visser, A., & de Jager Meezenbroek, E. (2016). Examining whether spirituality predicts subjective well-being: How to avoid tautology. *Psychology of Religion and Spirituality*, *8*, 141-148. <https://doi.org/10.1037/rel0000025>
- George, L. K., Larson, D. B., Koenig, H. G., & McCullough, M. E. (2000). Spirituality and health: What we know, what we need to know. *Journal of Social and Clinical Psychology*, *19*, 102-116. <https://doi.org/10.1521/jscp.2000.19.1.102>

- Goretzki, M., Thalbourne, M. A., & Storm, L. (2009). The questionnaire measurement of spiritual emergency. *Journal of Transpersonal Psychology, 41*, 81-97.
- Greeley, A. (1974). *Ecstasy: A way of knowing*. Englewood Cliffs, NJ: Prentice Hall.
- Greenfield, E. A., Vaillant, G. E., & Marks, N. F. (2009). Do formal religious participation and spiritual perceptions have independent linkages with diverse dimensions of psychological well-being? *Journal of Health and Social Behavior, 50*, 196-212. <https://doi.org/10.1177/002214650905000206>
- Greyson, B., & Harris, B. (1987). Clinical approaches to the near-death experience. *Journal of Near-Death Studies, 6*, 41-52. <https://doi.org/10.1007/BF01073267>
- Griffiths, R. R., Johnson, M. W., Richards, W. A., Richards, B. D., McCann, U., & Jesse, R. (2011). Psilocybin occasioned mystical-type experiences: Immediate and persisting dose-related effects. *Psychopharmacology, 218*, 649-665. <https://doi.org/10.1007/s00213-011-2358-5>
- Griffiths, R. R., Richards, W. A., Johnson, M. W., McCann, U. D., & Jesse, R. (2008). Mystical-type experiences occasioned by psilocybin mediate the attribution of personal meaning and spiritual significance 14 months later. *Journal of Psychopharmacology, 22*, 621-632. <https://doi.org/10.1177/0269881108094300>
- Griffiths, R. R., Richards, W. A., McCann, U., & Jesse, R. (2006). Psilocybin can occasion mystical-type experiences having substantial and sustained personal meaning and spiritual significance. *Psychopharmacology, 187*, 268-283. <https://doi.org/10.1007/s00213-006-0457-5>
- Grof, C., & Grof, S. (1989). *Spiritual emergency: When personal transformation becomes a crisis*. New York, NY: Putnam's Sons.
- Grof, C., & Grof, S. (1990). *Stormy search for the self*. Los Angeles, CA: Jeremy P. Tarcher.
- Hackney, C. H., & Sanders, G. S. (2003). Religiosity and mental health: A meta-analysis of recent studies. *Journal for the Scientific Study of Religion, 42*, 43-55. <https://doi.org/10.1111/1468-5906.t01-1-00160>
- Hammersley, P., Dias, A., Todd, G., Bowen-Jones, K. I. M., Reilly, B., & Bentall, R. P. (2003). Childhood trauma and hallucinations in bipolar affective disorder: Preliminary investigation. *The British Journal of Psychiatry, 182*, 543-547. <https://doi.org/10.1192/bjp.182.6.543>
- Hardaway, R., Schweitzer, J., & Suzuki, J. (2016). Hallucinogen use disorders. *Child and Adolescent Psychiatric Clinics of North America, 25*, 489-496. <https://doi.org/10.1016/j.chc.2016.03.006>
- Harrison, P. J. (1997). Schizophrenia: A disorder of neurodevelopment? *Current Opinion in Neurobiology, 7*, 285-289. [https://doi.org/10.1016/S0959-4388\(97\)80018-9](https://doi.org/10.1016/S0959-4388(97)80018-9)
- Heinrichs, R. W., & Zakzanis, K. K. (1998). Neurocognitive deficit in schizophrenia: A quantitative review of the evidence. *Neuropsychology, 12*, 426-445. <https://doi.org/10.1037/0894-4105.12.3.426>
- Helminiak, D. A. (2008). Confounding the divine and the spiritual: Challenges to a psychology of spirituality. *Pastoral Psychology, 57*, 161-182. <https://doi.org/10.1007/s11089-008-0163-9>
- Hood, R. W. (1977). Differential triggering of mystical experience as a function of self-actualization. *Review of Religious Research, 18*, 264-270. <https://doi.org/10.2307/3510214>
- Janssen, I., Krabbendam, L., Bak, M., Hanssen, M., Vollebergh, W., Graaf, R. D., & Os, J. V. (2004). Childhood abuse as a risk factor for psychotic experiences. *Acta Psychiatrica Scandinavica, 109*, 38-45. <https://doi.org/10.1046/j.0001-690X.2003.00217.x>
- Jensen, P. S., & Hoagwood, K. (1997). The book of names: DSM-IV in context. *Development and Psychopathology, 9*, 231-249. <https://doi.org/10.1017/S0954579497002034>
- Johnson, C. V., & Friedman, H. L. (2008). Enlightened or delusional? Differentiating religious, spiritual, and transpersonal experiences from psychopathology. *Journal of Humanistic Psychology, 48*, 505-527. <https://doi.org/10.1177/0022167808314174>
- Jones, P. B., Rodgers, B., Murray, R. M., & Marmot, M. G. (1994). Child developmental risk factors for adult schizophrenia in the British 1946 birth cohort. *Lancet, 344*, 1398-1402. [https://doi.org/10.1016/S0140-6736\(94\)90569-X](https://doi.org/10.1016/S0140-6736(94)90569-X)
- Jung, C. G. (1944/2014). Individual dream symbolism in relation to alchemy (R. F. C. Hull, Trans.). In H. Read et al. (Eds.), *The collected works of C. G. Jung: Complete digital edition* (Vol. 12, pp. 39-224). Retrieved from <http://www.ebscohost.com> (Original work published 1944).

- Kelleher, I., Harley, M., Lynch, F., Arseneault, L., Fitzpatrick, C., & Cannon, M. (2008). Associations between childhood trauma, bullying and psychotic symptoms among a school-based adolescent sample. *The British Journal of Psychiatry*, *193*, 378-382. <https://doi.org/10.1192/bjp.bp.108.049536>
- Keyes, C. L. (2002). The mental health continuum: From languishing to flourishing in life. *Journal of Health and Social Behavior*, *43*, 207-222. <https://doi.org/10.2307/3090197>
- Kleinman, A. (1977). Depression, somatization, and the "new cross-cultural psychiatry." *Social Science in Medicine*, *11*, 3-10. [https://doi.org/10.1016/0037-7856\(77\)90138-X](https://doi.org/10.1016/0037-7856(77)90138-X)
- Kremen, W. S., Buka, S. L., Seidman, L. J., Goldstein, J. M., Koren, D., & Tsuang, M. T. (1998). IQ decline during childhood and adult psychotic symptoms in a community sample: A 19-year longitudinal study. *American Journal of Psychiatry*, *155*, 672-677. <https://doi.org/10.1176/ajp.155.5.672>
- Lazare, A. (1973). Hidden conceptual models in clinical psychiatry. *New England Journal of Medicine*, *288*, 345-350. <https://doi.org/10.1056/NEJM197302152880705>
- Lewis, S. E. (2008). Ayahuasca and spiritual crisis: Liminality as space for personal growth. *Anthropology of Consciousness*, *19*, 109-133. <https://doi.org/10.1111/j.1556-3537.2008.00006.x>
- Lukoff, D. (1985). Diagnosis of mystical experiences with psychotic features. *Journal of Transpersonal Psychology*, *17*, 155-181.
- Lukoff, D. (1988). Transpersonal perspectives on manic psychosis: Creative, visionary, and mystical states. *Journal of Transpersonal Psychology*, *20*, 111-139.
- Lukoff, D. (2005). Spiritual and transpersonal approaches to psychotic disorders. In S. Mijares & G. S. Khalsa (Eds.), *The psychospiritual clinician's handbook: Alternative methods for understanding and treating mental disorders* (pp. 233-258). Binghamton, NY: The Haworth Reference Press.
- Lukoff, D., & Everest, H. C. (1985). The myths in mental illness. *Journal of Transpersonal Psychology*, *17*, 123-153.
- Lukoff, D., Lu, F., & Turner, R. (1995). Cultural considerations in the assessment and treatment of religious and spiritual problems. *Psychiatry Clinics North America*, *18*, 467-485.
- Lukoff, D., Lu, F., & Turner, R. (1996). Diagnosis: A transpersonal clinical approach to religious and spiritual problems. In B. W. Scotton, A. B. Chinen, & J. R. Battista (Eds.), *Textbook of transpersonal psychiatry and psychology* (pp. 231-249). New York, NY: Basic Books.
- Lukoff, D., Lu, F., & Turner, R. (1992). Toward a more culturally sensitive DSM-IV: Psychoreligious and psychospiritual problems. *The Journal of Nervous and Mental Disease*, *180*, 673-682. <https://doi.org/10.1097/00005053-199211000-00001>
- Lukoff, D., Lu, F., & Turner, R. (1998). From spiritual emergency to spiritual problem: The transpersonal roots of the new DSM-IV category. *Journal of Humanistic Psychology*, *38*, 21-50. <https://doi.org/10.1177/00221678980382003>
- Lyvers, M., & Meester, M. (2012). Illicit use of LSD or psilocybin, but not MDMA or nonpsychedelic drugs, is associated with mystical experiences in a dose-dependent manner. *Journal of Psychoactive Drugs*, *44*, 410-417. <https://doi.org/10.1080/02791072.2012.736842>
- MacDonald, D. A., Friedman, H. L., Brewczynski, J., Holland, D., Salagame, K. K. K., Mohan, K. K., Gubrij, Z. O., & Cheong, H. W. (2015). Spirituality as a scientific construct: Testing its universality across cultures and languages. *PloS ONE*, *10*, 1-38. <https://doi.org/10.1371/journal.pone.0117701>
- MacLean, K. A., Johnson, M. W., & Griffiths, R. R. (2011). Mystical experiences occasioned by the hallucinogen psilocybin lead to increases in the personality domain of openness. *Journal of Psychopharmacology*, *25*, 1453-1461. <https://doi.org/10.1177/0269881111420188>
- Marengo, S., & Weinberger, D. R. (2000). The neurodevelopmental hypothesis of schizophrenia: Following a trail of evidence from cradle to grave. *Development and Psychopathology*, *12*, 501-527. <https://doi.org/10.1017/S0954579400003138>
- Maslow, A. (1994). *Religions, values, and peak-experiences*. New York, NY: Penguin Arkana.
- Masten, A. S. (2006). Developmental psychopathology: Pathways to the future. *International Journal of Behavioral Development*, *30*, 47-54. <https://doi.org/10.1177/0165025406059974>
- Masten, A. S. (2011). Resilience in children threatened by extreme adversity: Frameworks for research, practice, and translational synergy. *Development and Psychopathology*, *23*(02), 493-506. <https://doi.org/10.1017/S0954579411000198>

- Mednick, S. A., Watson, J. B., Huttunen, M., Cannon, T. D., Katila, H., Machon, R., Mednick, B., Hollister, M., Parnas, J., Schulsinger, F., Sajaniemi, N., Voldsgaard, P., Pyhala, R., Gutkind, D., & Wang, X. (1998). A two-hit working model of the etiology of schizophrenia. In M. F. Lenzenweger & R. H. Dworkin (Eds.), *Origins and development of schizophrenia: Advances in experimental psychopathology* (pp. 27-66). Washington, DC: American Psychological Association. <https://doi.org/10.1037/10305-002>
- Menezes, A., & Moreira-Almeida, A. (2010). Religion, spirituality, and psychosis. *Current Psychiatry Reports, 12*(3), 174-179. <https://doi.org/10.1007/s11920-010-0117-7>
- Metzner, R. (2010). *The unfolding self: Varieties of transformative experience*. Ross, CA: Pioneer Imprints.
- Moreira-Almeida, A., Lotufo Neto, F., & Koenig, H. G. (2006). Religiousness and mental health: A review. *Revista Brasileira de Psiquiatria, 28*, 242-250. <https://doi.org/10.1590/S1516-44462006005000006>
- Morgan, C., & Hutchinson, G. (2010). The sociodevelopmental origins of psychosis. In C. Morgan & D. Bhugra (Eds.), *Principles of social psychiatry* (pp. 193-214). Chichester, UK: Wiley-Blackwell. <https://doi.org/10.1002/9780470684214.ch15>
- Nelson, B., & Sass, L. A. (2008). The phenomenology of the psychotic break and Huxley's trip: Substance use and the onset of psychosis. *Psychopathology, 41*, 346-355. <https://doi.org/10.1159/000152376>
- Offord, D. R., & Cross, L. A. (1969). Behavioural antecedents of adult schizophrenia. *Archives of General Psychiatry, 21*, 267-283. <https://doi.org/10.1001/archpsyc.1969.01740210011003>
- Oxman, T. E., Rosenberg, S. D., Schnurr, P. P., Tucker, G. J., & Gala, G. (1988). The language of altered states. *Journal of Nervous Mental Disease, 176*, 401-408. <https://doi.org/10.1097/00005053-198807000-00002>
- Pahnke, W. N., & Richards, W. A. (1966). Implications of LSD and experimental mysticism. *Journal of Religion and Health, 5*, 175-208. <https://doi.org/10.1007/BF01532646>
- Parnas, J., & Henriksen, M. G. (2016). Mysticism and schizophrenia: A phenomenological exploration of the structure of consciousness in the schizophrenia spectrum disorders. *Consciousness and Cognition, 43*, 75-88. <https://doi.org/10.1016/j.concog.2016.05.010>
- Peteet, J. R., & Balboni, M. J. (2013). Spirituality and religion in oncology. *CA: A Cancer Journal for Clinicians, 63*, 280-289. <https://doi.org/10.3322/caac.21187>
- Peterson, C., & Seligman, M. E. (2004). *Character strengths and virtues: A handbook and classification*. New York, NY: Oxford University Press.
- Popper, K. R. (1994). *The myth of the framework: In defense of science and rationality*. New York, NY: Routledge.
- Puri, B., Hall, A., & Ho, R. (2013). *Revision notes in psychiatry*. Boca Raton, FL; CRC Press. <https://doi.org/10.1201/b13188>
- Rapoport, J. L., Addington, A. M., Frangou, S., & Psych, M. R. C. (2005). The neurodevelopmental model of schizophrenia: Update 2005. *Molecular Psychiatry, 10*, 434-449. <https://doi.org/10.1038/sj.mp.4001642>
- Read, J., Agar, K., Argyle, N., and Aderhold, V. (2003). Sexual and physical assault during childhood and adulthood as predictors of hallucinations, delusions and thought disorder. *Psychology and Psychotherapy: Theory, Research and Practice, 76*, 1-22.
- Ring, K. (1985). *Heading toward omega*. New York, NY: William Morrow.
- Rutter, M. (1996). Developmental psychopathology: Concepts and prospects. In M. Lenzenweger & J. Havgard (Eds.), *Frontiers of developmental psychopathology* (pp. 209-237). New York, NY: Oxford University Press.
- Rutter, M., & Sroufe, L. (2000). Developmental psychopathology: Concepts and challenges. *Development and psychopathology, 12*, 265-296. <https://doi.org/10.1017/S0954579400003023>
- Saucier, G., & Skrzypińska, K. (2006). Spiritual but not religious? Evidence for two independent dispositions. *Journal of Personality, 74*, 1257-1292. <https://doi.org/10.1111/j.1467-6494.2006.00409.x>
- Sawatzky, R., Ratner, P. A., & Chiu, L. (2005). A meta-analysis of the relationship between spirituality and quality of life. *Social Indicators Research, 72*, 153-188. <https://doi.org/10.1007/s11205-004-5577-x>
- Shevlin, M., Houston, J. E., Dorahy, M. J., and Adamson, G. (2008). Cumulative traumas and psychosis: An analysis of the national comorbidity survey and the British Psychiatric Morbidity Survey. *Schizophrenia Bulletin, 34*, 193-199. <https://doi.org/10.1093/schbul/sbm069>

- Sinclair, S., Pereira, J., & Raffin, S. (2006). A thematic review of the spirituality literature within palliative care. *Journal of Palliative Medicine, 9*, 464-479. <https://doi.org/10.1089/jpm.2006.9.464>
- Sroufe, L. (1997). Psychopathology as an outcome of development. *Development and Psychopathology, 9*, 251-268. <https://doi.org/10.1017/S0954579497002046>
- Sroufe, L. A., & Egeland, B. (1991). Illustrations of person and environment interaction from a longitudinal study. In T. Wachs & R. Plomin (Eds.), *Conceptualization and measurement of organism-environment interaction* (pp. 68-84). Washington, DC: American Psychological Association. <https://doi.org/10.1037/10100-004>
- Sroufe, L. A. (2009). The concept of development in developmental psychopathology. *Child Development Perspectives, 3*, 178-183. <https://doi.org/10.1111/j.1750-8606.2009.00103.x>
- Sroufe, L. A. (2007). The place of development in developmental psychopathology. In A. S. Masten (Ed.), *Multilevel dynamics in developmental psychopathology: Pathways to the future. The Minnesota Symposia in child psychology* (pp. 285-298). Mahwah, NJ: Erlbaum Associates.
- Stace, W. T. (1960). *Mysticism and philosophy*. London, UK: MacMillan.
- Thomas, L. E., & Cooper, P. (1978). Measurement and incidence of mystical experiences: An exploratory study. *Journal for the Scientific Study of Religion, 17*, 433-437. <https://doi.org/10.2307/1385407>
- Tsou, J. Y. (2015). DSM-5 and psychiatry's second revolution: Descriptive vs. theoretical approaches to psychiatric classification. In S. Demazeux & P. Singy (Eds.), *The DSM-5 in perspective* (pp. 43-62). Dordrecht, Netherlands: Springer. https://doi.org/10.1007/978-94-017-9765-8_3
- Turner, R. P., Lukoff, D., Barnhouse, R. T., & Lu, F. G. (1995). A culturally sensitive diagnostic category in the DSM-IV. *The Journal of Nervous and Mental Disease, 183*, 435-444. <https://doi.org/10.1097/00005053-199507000-00003>
- van Os, J., Linscott, R. J., Myin-Germeys, I., Delespaul, P., & Krabbendam, L. (2009). A systematic review and meta-analysis of the psychosis continuum: Evidence for a psychosis proneness-persistence-impairment model of psychotic disorder. *Psychological Medicine, 39*, 179-195. <https://doi.org/10.1017/S0033291708003814>
- Visser, A., Garssen, B., & Vingerhoets, A. (2010). Spirituality and wellbeing in cancer patients: A review. *Psycho-Oncology, 19*, 565-572. <https://doi.org/10.1002/pon.1626>
- Walker, E. F., Savoie, T., & Davis, D. (1994). Neuromotor precursors of schizophrenia. *Schizophrenia Bulletin, 20*, 441-451. <https://doi.org/10.1093/schbul/20.3.441>
- Walsh, R. N., & Vaughan, F. E. (1991). Comparative models of the person and psychotherapy. In S. Boorstein (Ed.), *Transpersonal psychotherapy* (pp. 12-27). Stanford, CA: JTP Books.
- Washburn, M. (1995). *The ego and the dynamic ground: A transpersonal theory of human development*. Albany, NY: State University of New York Press.
- Wasson, R. G. (1980). *The wondrous mushroom: Mycolatry in Mesoamerica* (No. 7). New York, NY: McGraw-Hill.
- Whitfield, C. L., Dube, S. R., Felitti, V. J., & Anda, R. F. (2005). Adverse childhood experiences and hallucinations. *Child Abuse and Neglect, 29*, 797-810. <https://doi.org/10.1016/j.chiabu.2005.01.004>
- Whitney, E. (1998). Personal accounts: Mania as spiritual emergency. *Psychiatric Services, 49*, 1547-1548. <https://doi.org/10.1176/ps.49.12.1547>
- Wicks, S., Hjern, A., Gunnell, D., Lewis, G., & Dalman, C. (2005). Social adversity in childhood and the risk of developing psychosis: A national cohort study. *American Journal of Psychiatry, 162*, 1652-1657. <https://doi.org/10.1176/appi.ajp.162.9.1652>
- Wiggins, O. P., & Schwartz, M. A. (1994). The limits of psychiatric knowledge and the problem of classification. In J. Z. Sadler, O. P. Wiggins, & M. A. Schwartz (Eds.), *Philosophical perspectives on psychiatric diagnostic classification* (pp. 89-103). Baltimore, MD: Johns Hopkins University Press.
- Wilber, K. (2006). *Integral spirituality*. Boston, MA: Integral Books.
- Wilber, K. (1996). *The atman project: A transpersonal view of human development*. Wheaton, IL: Quest Books.
- Wilber, K. (1984). The developmental spectrum and psychopathology: Part I, stages and types of pathology. *Journal of Transpersonal Psychology, 16*, 75-118.
- Yonker, J. E., Schnabelrauch, C. A., & Dehaan, L. G. (2012). The relationship between spirituality and religiosity on psychological outcomes in adolescents and emerging adults: A meta-analytic review. *Journal of Adolescence, 35*, 299-314. <https://doi.org/10.1016/j.adolescence.2011.08.010>

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